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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/627,018   | 07/25/2003  | Hsueh Sung Tung      | H0003777            | 3669             |
| 7590 05/12/2004  |             |                      | EXAMINER            |                  |
| Colleen D. Szuch, Esq.<br>Honeywell International Inc.<br>101 Columbia Road-Patent Department<br>Morristown, NJ 07962-2245 |             |                      | KEYS, ROSALYND ANN  |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1621                |                  |

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/627,018             | TUNG ET AL.         |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Rosalynd Keys          | 1621                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/25/03</u> . | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Status of Claims***

1. Claims 1-26 are pending.  
Claims 1-26 are rejected.

***Information Disclosure Statement***

2. The information disclosure statement filed July 25, 2003 has been considered.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were

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made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievert et al. (US 6,329,559) alone or Manogue et al. (US 6,018,083) alone or Webster et al. (US 5,057,634) alone or in view of Miller et al. (US 6,211,135 B1) and Miller et al. (US 6,677,493 B1) and Lewis (Hawley's Condensed Chemical Dictionary, twelfth edition, 1993, page 616).

The instant process although not exemplified is clearly suggested by Sievert et al. (see entire disclosure, in particular column 4, line 54 to column 9, line 29).

The instant process although not exemplified is clearly suggested by Manogue et al. (see entire disclosure, in particular column 1, line 65 to column 3, line 67 and Tables I and 5).

The instant process is inherently taught by Webster et al. (see entire disclosure, in particular column 1, line 60 to column 6, line 8); column 10, lines 41-55; and column 11, line 53 to column 12, line 68). Webster et al. inherently teach the instant invention because it utilizes the same reactants under the same reaction conditions. Thus, the ordinary skilled artisan would expect to obtain the same results in Webster et al. as those obtained in the instant invention.

The above prior art references further differ from the instant claims in that they fail to teach conducting the hydrogenation reaction in absence of a catalyst.

Miller et al. '135 teach hydrogenation of CFC-216aa in the presence or absence of a catalyst (see column 3, lines 5-12).

Miller et al. '493 teach hydrogenation of CFC-217ba in the presence or absence of a catalyst (see column 3, lines 6-13).

One having ordinary skill in the art the time the invention was made would have found it obvious to conduct the hydrogenation reactions of Sievert et al., Manogue et al. or Webster et al. in the absence of a catalyst when the hydrogenation temperature is between about 350°C and 700°C, since Miller et al. '135 and '493 teach that when the hydrogenation reaction temperature is between about 350°C and 700°C the hydrogenation reaction may be conducted without a catalyst.

Manogue et al. and Webster et al. further differ from the instant claims in that they fail to teach that the HF is pre-vaporized.

Lewis teaches that HF is available as a fuming gas (i.e. vapor) or a liquid (see page 616 under the definition of hydrogen fluoride).

One having ordinary skill in the art at the time the invention was made would have found it obvious to utilize HF in vapor form in the processes of Manogue et al. and Webster et al., since the processes of Manogue et al. and Webster et al. are conducted in the vapor phase. Thus, the use of a vaporized HF would eliminate the need to vaporize the HF prior to use.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynd Keys whose telephone number is 571-272-

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0639. The examiner can normally be reached on M, R and F 3:30-8:30 pm and T-W 5:30-10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Rosalyn Keys  
Primary Examiner  
Art Unit 1621

May 7, 2004